

JUN 12 2006

Amendments to the Specification:

Please insert the following new paragraph on page 1, between lines 3 and 4, directly following the title of the invention:

-- CROSS REFERENCE TO RELATED APPLICATION

This application claims priority of German patent application no. 102 48 195.4, filed October 16, 2002, the entire content of which is incorporated herein by reference. --

The paragraph starting at page 3, line 18, is amended and now reads as follows:

-- A further advantage is that a brake intervention, which is initiated by the deceleration function, is recognized as permissible when an instantaneous vehicle speed drops below a pregiven value. In this way, the operation of specific deceleration functions or brake functions is ensured for a low speed or a vehicle at standstill, for example, such as a hill holder function. At ~~corresponding~~ correspondingly low vehicle speeds and therefore at a ~~corresponding~~ correspondingly low selection of the pregiven value for the instantaneous vehicle speed, a defectively initiated brake intervention remains without significant effect on the driving safety and the driving comfort as well as without significant wear of the brake system. --

The paragraph starting at page 8, line 25, is amended and now reads as follows:

-- For the case that the actual speed is greater than the desired speed (which is pregiven at the input unit 15 or, in the case of an adaptive vehicle speed control, pregiven in dependence upon the traffic traveling ahead) or the upper speed limit, then the vehicle speed control or the speed limiting can be realized additionally or alternatively to the drive train control also with the aid of the deceleration function 75. Furthermore, the hill holder function 30 can also be realized with the deceleration function 75 in that the desired brake action on a hill is achieved after releasing the corresponding vehicle brake operator-controlled element by storage of the brake pressure which was sufficient to bring the vehicle to standstill on the hill. Only when the engine torque, which is wanted by the driver via the actuation of the accelerator pedal, is sufficient in order to accelerate the vehicle reliably on the hillside, can the deceleration function 75 again reduce the stored brake pressure in order to make possible a reliable start drive on the hill. In this way, a vehicle deceleration is pregiven by the deceleration function 75 for the vehicle speed control 20 as well as for the speed limit limiting function 25 and the hill holder function 30. This vehicle deceleration is independent of the actuation of a vehicle brake operator-controlled element. In the case of the hill holder function 30, the deceleration function 75 causes a braking of the vehicle without one of the vehicle braking operator-controlled elements being actuated. In the case of the vehicle speed control 20 and the speed limiting function 25, a desired speed or an upper speed limit is pregiven, for example, at the vehicle-speed control lever, which is less than the

instantaneous actual speed so that the deceleration function 75 can initiate a braking operation in order to cause the actual speed to approach the desired speed or the upper speed limit without actuation of the vehicle brake operator-controlled elements. The output of the deceleration function with the brake action to be adjusted or the brake pressure to be adjusted is connected via an AND-gate 95 to a deceleration interface 5. The deceleration interface 5 is connected to a brake system 10 via a bus system 100 (for example, a CAN-bus), which connects the control apparatuses, so that the braking action, which is requested by the deceleration function 75, can be transmitted via the deceleration interface 5 and the bus system 100 connecting the control apparatuses to the brake system 10 of the vehicle for realization. The brake system 10 includes, for example, a brake control apparatus or a control apparatus for an electronic stability program and addresses the vehicle brakes individually or together directly in dependence upon the wanted braking action transmitted from the deceleration interface 5. It is understood that the brake system responds also to direct actuation of a vehicle brake operator-controlled element which, however, is not the subject matter of this invention. --

The paragraph starting at page 16, line 10, is amended and now reads as follows:

-- In addition, or alternatively, it can be provided that the monitoring means 40 checks the permissibility of a brake intervention, which is initiated by the deceleration ~~function 75~~

function 75, in that the monitoring means 40 compares the input of the vehicle deceleration, which is requested by the torque coordinator 65, to a pregiven range. This vehicle deceleration is supplied to the deceleration function 75 as well as the monitoring means 40. If the input of the vehicle deceleration lies within the pregiven range, then a corresponding brake intervention, which is initiated by the deceleration function, is recognized as permissible. If the input of the vehicle deceleration lies outside of the pregiven range, then a brake intervention, which is initiated by the deceleration function 75, is recognized as impermissible. The pregiven range can, for example, be selected from zero to  $2.5 \text{ m/s}^2$  for the magnitude of the vehicle deceleration. A vehicle deceleration in this range results, as a consequence, in a comfortable braking operation of the vehicle for the driver. A full braking or emergency braking in the context of a safety function is not possible with a vehicle deceleration in such a pregiven range. Also, no full braking or emergency braking in the context of a safety function is to be realized via the deceleration function 75. This is reserved to an actuation of a vehicle brake operator-controlled element by the driver which is, for example, supported by an anti-blocking system. --

The paragraph starting at page 18, line 11, is amended and now reads as follows:

-- Notwithstanding the described fault reaction of the deactivation of the deceleration function 75 by the monitoring

means 40 or the deactivation of the deceleration interface 5 by the fault reaction monitoring unit 80, the vehicle speed control unit 20 can be deactivated via the first switch 85 or the speed limiting function 25 can be deactivated via the second switch 90 in the case of a fault. This is the case, for example, when the vehicle speed control monitoring unit 50 or the speed limiting function monitoring unit 55 receive implausible data from the input unit 15. This can, in the case of the vehicle speed control, take place, for example, in that simultaneously a command is received for increasing the desired speed and for decreasing the desired speed. It can also happen in that a desired speed, which lies outside of the pregiven range and is therefore defective data, is received by the input unit 15. Correspondingly, in the case of the speed limiting function 25, an upper speed limit can be received from the input unit 15 in the case of a fault which upper speed limit lies outside a pregiven range and therefore leads to a deactivation of the speed ~~limit~~ limiting function 25 via the second switch 90. The corresponding monitoring of the vehicle speed control unit 20 takes place via the vehicle speed control monitoring unit 50 and the monitoring of the speed limiting function 25 takes place via the speed limiting control function monitoring unit 55 in the manner described. --

The paragraph starting at page 19, line 6, is amended and now reads as follows:

-- Furthermore, the possibility is present for a fault in the

engine control 1, which is not limited to the vehicle speed control, the speed ~~limit~~ limiting function 25, the hill holder function 30, the deceleration function 75 or the drive train control 70, to completely reset the engine control 1 and after a short time to start the same anew in order to eliminate an occurring software fault or hardware fault. As an example for a hardware fault, a so-called "bitkipper" via EMV effect (electromagnetic compatibility) is mentioned wherein one or several bits in a RAM or ROM of the engine control apparatus 1 are made incorrect. This can lead to any possible fault function, for example, even to a defective driving of the deceleration function 75 or of the deceleration interface 5. If only the deceleration function 75 or the deceleration interface 5 is affected, then the above-described deactivation of the deceleration function 75 or the deceleration interface 5 occurs. If the error is, however, in a higher level function, for example, in the torque coordinator 65, then the described fault measures of reset and restart of the engine control 1 are recommended. --

The paragraph starting at page 21, line 12, is amended and now reads as follows:

-- With the functional independence of the monitoring of the deceleration function 75 and of the deceleration interface 5, the monitoring concept for the monitoring of unwanted deceleration can be integrated modularly and without effect on other functions and monitoring of the engine control 1 in the monitoring unit 35.

Here, it is decisive that, at first, only the deceleration function 75 is deactivated when a brake intervention of the brake system 10, which is initiated by the deceleration function 75, is recognized as impermissible by the monitoring means 40. With the deactivation of the deceleration function 75, it is prevented that the deceleration interface 5 transmits a deceleration command to the braking system 10 via the bus system 100 connecting the control apparatuses. Farther reaching fault reactions are therefore at first not required. In the case of such a disablement of the deceleration function 75, the remaining functions of the engine control 1 and their other interfaces to the bus system 100, which connects the control apparatuses, remain untouched. The monitoring means 40 and the possibly present fault reaction monitoring unit 80 in this way make possible the reliable prevention of an implausible response from the deceleration interface 5 via the deceleration function 75 for the case that functions use the deceleration interface 5 via the deceleration function 75. These functions are, for example, the vehicle speed control, the speed limiting function 25 and/or the hill holder function 30, for example, in the engine control 1. In this way, a monitoring concept for the deceleration function 75 and the deceleration interface 5 is realized. --